

Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
5. A system for producing energy from sea waves, said system comprising a support assembly adapted for resting on a sea floor and having legs (6), anchorable to the sea floor, said legs supporting an upper frame (5), said system further comprising at least two paddle units, which are carried by the upper frame, each paddle unit comprising a paddle rod (3) and a paddle plate (4), said paddle plate being connectable to a lower extremity of the paddle rod, wherein each paddle rod is secured at the upper frame with possibility for pivoting with respect thereto and said at least two paddle units are deployed on the support assembly in such a manner that their respective paddle plates are arranged in series to be successively driven forward and backward by the sea waves, wherein said upper frame (5) is fitted with axles (14) and there are provided respective sleeve housings (13) mounted with possibility for pivoting about the axles (14) and wherein an upper extremity of each paddle rod (3) is rigidly secured at the respective sleeve housing (13) such that the sleeve housing can be pivotally driven by the paddle rod (3), said system further comprising a converting means operatively coupled to the sleeve housings (13) and said converting means is capable to convert pivotal motion of the sleeve housings (13) into an energy irrespective whether the paddle plates are driven by the sea waves backward or forward.
6. A system as defined in Claim 5, in which said converting means comprises a crank mechanism, at least a first (AC1) and a second (AC2) accumulator, a hydraulic engine (HE) and a generator (G), wherein the crank mechanism is operatively coupled to the first and to the second accumulator to actuate either

the first or the second accumulator depending whether the paddle plates are driven by the sea waves forward or backward.

7. A system as defined in Claim 6, in which the crank mechanism comprises a piston rod (12), a hydraulic cylinder (1) and an extension rod (2), wherein one end of the extension rod is connected to the piston rod (12) and an opposite end of the extension rod (2) is connected to the sleeve housing (13), the arrangement being such that pivotal motion of the sleeve housing (13) is associated with a reciprocating linear motion of the extension rod (2) upon which a hydraulic fluid is supplied from the hydraulic cylinder (1) to either the first or the second accumulator.
8. A system as defined in Claim 5, in which the paddle rod (3) has a variable length such that a distance from the paddle plate (4) to either the sea floor or to a sea level can be adjusted.
9. A system as defined in Claim 5, in which the legs (6) have adjustable length such that a distance from the paddle plate (4) to either the sea floor or to a sea level can be adjusted.
10. A system as defined in Claim 8, in which the paddle rod (3) is configured as a telescope and there is provided a mechanism for variation the length of the telescope.
11. A system as defined in Claim 10, in which said telescope comprises telescope sections (3A, 3B, 3C, 3D) and said mechanism for variation the length comprises a motor (D1,D2) and at least one cable (20) connected to the paddle plate (4) wherein said telescope sections are displaceable upon pulling the cable by the motor.
12. A system as defined in Claim 8, in which the distance from the paddle plate (4) to the sea floor or to the sea level is adjustable simultaneously for all paddle units.